UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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SEP - 7 2007

Ref: EPR-N

Mark Booth
District Ranger
Bighorn Ranger District
1415 Fort Street
Buffalo, WY 82834

Re: Battle Park and Misty Moon Allotment Management Plan DEIS CEQ 20070299

Dear Mr. Booth:

The U. S. Environmental Protection Agency (EPA) Region 8 has reviewed the Thunder Basin Analysis Area Vegetation Management Draft Environmental Impact Statement (DEIS). Our comments are provided in accordance with our authorities under the National Environmental Policy Act (NEPA), 42 U.S.C. 4231 and Section 309 of the Clean Air Act. The U.S. Forest Service proposes to implement an updated allotment management plan in two grazing allotments within the Bighorn National Forest, with the stated objective of reauthorizing grazing under an adaptive management plan in a manner that moves resource conditions towards meeting forest plan objective and desired on-the-ground conditions. The preferred alternative, Alternative 3, would implement allotment planning informed by adaptive management and monitoring strategies to accomplish this objective.

EPA finds that the DEIS' analysis requires more information in order to more completely anticipate and mitigate impacts of the proposed action, no-action and no-change alternatives. In general, EPA's concerns with the DEIS center on the degree of planning and commitment to adaptive management activities, the sufficiency of the analysis of the current state of the resource, and with the extent of sagebrush clearing proposed by the preferred alternative.

EPA believes that the DEIS should include a comprehensive, proactive drought management plan. As climate change trends predict frequent and long-duration droughts throughout the West for the duration of this EIS' planning period, EPA strongly recommends inclusion of a drought management plan in the Final EIS.

In Chapter 1, "Desired Conditions" Table 1-2, the DEIS specifies that "where existing rangeland condition is satisfactory, a stubble height of 3 inches be left." This does not appear to be consistent with the standards of the Forest Plan, which specifies a minimum stubble height of

five inches, and the FEIS should clarify and explain this apparent conflict. The DEIS does not demonstrate that this standard is adequately protective of soil and water resources, and does not explain why it was chosen instead of the forest plan guidelines.

Chapter 2 details a number of adaptive strategies. EPA requests the inclusion in the Final EIS of more robust adaptive management planning to accompany these strategies. While general design criteria were included in substantial detail, the Final EIS should include defined timelines, detailed decision trees, actions to be taken at given specific thresholds and allotment-specific strategies.

In the same "Adaptive Strategies" subsection, and in Table 2-5, the DEIS proposes the clearance of approximately 4,000 acres of sagebrush. EPA is concerned that this proposed action may result in environmental impacts, such as the destruction of bird (such as sage grouse, sage/Brewer's/Grasshopper sparrow, short-eared owl, loggerhead shrike) habitat, the creation of prime conditions for the further invasion of cheatgrass and other non-native species that thrive on fire disturbance, erosion and soil disturbance, and overall loss of plant and animal biodiversity in treated areas. In light of these foreseeable impacts, EPA believes that the EIS does not sufficiently justify this action. It is not clear how this action's potential benefits vis a vis the creation of more grazing forage can outweigh its potential for degradation of soil, water and wildlife resources.

In Chapter 2, under "Effectiveness (Long Term Trend) Monitoring," the DEIS specifies a 10-year monitoring interval. EPA is concerned that this interval, which is substantially longer than those typically proposed for adaptive management activities, will not allow managers to respond in timely fashion to rapidly changing conditions, as trends would only be apparent after three decades at the earliest. We note that foreseeable trends in climate change predict dramatic changes in the western U.S., including widespread drought and changes in biogeography, even within the decade preceding the first discussed monitoring activities. The Final EIS should clarify on what basis this unusually long monitoring interval was selected, how this monitoring scheme represents an improvement on current monitoring schemes and how it will provide sufficient data to inform a responsive, truly adaptive grazing management strategy. Additionally, please clarify to what degree resources have been committed to these management activities.

Under Chapter 3, subsection "Soil Resources," the DEIS states that "existing geologic and soil conditions were analyzed using summaries provided in the Soil Survey of the Bighorn National Forest, Wyoming (Nesser 1986)." However, the results of that analysis do not appear to be included in the DEIS; nor does a comprehensive survey of present-day soil quality. At this point, it is not possible to ascertain whether soil conditions in the project area are satisfactory or whether the mitigation measures proposed are adequately protective of soil resources. EPA suggests that the Final EIS include a more complete assay of soil quality, productivity, and integrity using quantitative standards, such as compaction, aggregate size, organic carbon content, productivity and bulk density. EPA further suggests the inclusion of a quantitative soil quality monitoring plan in the Final EIS to track trends and changes in soil quality over time.

In the same subsection of Chapter 3, "Soil Resources," under "General Effects," the DEIS describes an approach to soil damage mitigation that appears to assume that only soils sensitive to disturbance are likely to sustain damage from ungulate grazers. EPA believes that this approach may not be adequately protective of all soil resources in the project area, and requests justification of this approach be integrated into the Final EIS. EPA is also concerned that the mitigation measures proposed, such as limiting grazing to times when sensitive soils are "relatively drier" and meeting minimum stubble height requirements (which are substantially lower than those specified by the Forest Plan vegetation management standards) may not be sufficient to protect soil resources, and we request that the final EIS explain this approach as well.

EPA believes that Chapter 3, subsection "Aquatic Resources" should present additional information for the evaluation of current water quality conditions, making evaluation of aquatic and fisheries impact difficult. EPA recommends that more quantitative and comprehensive indicators for water quality and stream health be included in the Final EIS, and that planning to track trends and changes in those water quality variables over time be incorporated as well. These could include stream temperature, dissolved oxygen content, turbidity, sedimentation, settled solids including percent fines in spawning gravels and fecal coliform and total bacteria counts. The Wyoming Department of Environmental Quality established the presence of fecal coliform bacteria in the nearby North Tongue River, a watershed under similar usage as the project area. We believe a quantitative characterization of water quality and ongoing monitoring of water quality should be included in the DEIS. These comments also apply to the subsection "Fisheries Resources" in Chapter 3.

EPA also believes that additional detail should be provided on the condition of riparian vegetation and soils. The DEIS does not characterize in detail the functional condition of riparian zones within the planning area. What detail is provided – deeply incised channels, degraded bank conditions, and photos apparently showing overutilization of stream bank vegetation – raises the concern that riparian areas in the project area are not meeting or moving towards Properly Functioning Condition (PFC). EPA recommends that the final EIS include a more systematic evaluation of the functional condition of riparian areas in these allotments, as well as planning to move those areas towards meeting PFC.

Based on the procedures the EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and its alternatives in an EIS, EPA rates the preferred alternative in the DEIS as EC-2 (Environmental Concerns – Insufficient Information). An "EC" signifies that EPA's review of the DEIS and preferred alternative has identified potential environmental impacts that should be avoided in order to provide adequate protection for the environment. A "2" rating signifies that the DEIS does not contain sufficient information for the EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment. A copy of EPA's rating criteria is enclosed.

These comments are intended to help ensure a comprehensive assessment of the project's environmental impacts, adequate public disclosure and an informed decision-making process for alternative selection. If you would like to discuss our comments, please feel free to contact me at (303) 312-6004 or the lead reviewer for this project, Charlie Lawton, at (303) 312-7037.

Sincerely,

Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation

Enclosure